

PATENT CLAIMS

1. Non-basic refractory batch which contains

1.1 65 – 90 M-% non-basic refractory material with a  
5 grain-size fraction of < 15 mm, and

1.2.1 10 – 35 M-% of a combination of at least one phosphatic  
and at least one silicatic component, or

10 1.2.2 10 – 35 M-% of a combination of at least one C-containing  
component and at least one silicatic component.

2. Batch according to Claim 1, with the proportion of the non-basic refractory material between  
67 and 84 M-%.

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3. Batch according to Claim 1, with the proportion of the non-basic refractory  
Material between 70 and 80 M-%.

20 4. Batch according to Claim 1, whose phosphatic and/or silicatic component forms a molten  
phase at temperature > 500° C.

5. Batch according to Claim 1 with the proportion of the silicatic component  
between 2 and 23 M-%.

6. Batch according to Claim 1, with the proportion of the silicatic component  $\geq 5$  M-%.

7. Batch according to Claim 1, whose silicatic component is present in a grain- size fraction  $< 5$  0.3mm.

8. Batch according to Claim 1, whose silicatic component includes at least one of the following components: calcium silicate, sodium silicate, aluminum silicate, boron silicate.

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9. Batch according to Claim 1, in which the components are proportioned in relation to each other so that the batch forms at least 15 M-% of a molten phase at the application temperature.

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10. Batch according to Claim 1, in which the components are proportioned in relation to each other such that the batch forms at least 20 M-% of a molten phase at the application temperature.

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11. Batch according to Claim 1, whose non-basic refractory material includes at least one of the following components: sinter alumina, high-grade corundum, standard corundum, MA-spinel, bauxite, andalusite, mullite, zirconium corundum, zirconium mullite, kaolin, clay.

12. Batch according to Claim 1, whose phosphatic component is present in a proportion < 11 M-%.

13. Batch according to Claim 1, whose C-containing component consists at least partly of one of  
5 the following components: pitch, tar, resin.

14. Batch according to Claim 1, where the proportion of the C-containing component is < 13 M-%.

10 15. Batch according to Claim 1, with at least one of the following additional components:

- Al<sub>2</sub>O<sub>3</sub> (< 5 M-%)
- MgO (< 8 M-%)
- Micro-silica (fine-grained silicic acid) (< 2 M-%)
- 15 -Oil (in particular, mineral oil) (< 4 M-%).

16. Batch according to Claim 1, with at least one of the following components: reactive alumina, fine-grained MgO sinter.

20 17. Batch according to Claim 1, in which the total quantity of phosphatic and silicatic components, per criterion 1.2.1 is 20 – 28 M-%.

18. Batch according to Claim 1, in which the total quantity of C-containing and silicatic components, per criterion 1.2.2, is 12 – 18 M-%.
19. Use of the batch according to one of the Claims 1 to 18 for the hot repair of refractory linings in metallurgical melting vessels.